

PERFORMANCE DATA

Size	Core Velocity (fpm)	300	400	500	600	700	800	1000	1200	1400	1600	1800	
	Velocity Pressure (in. w.g.)	0.006	0.010	0.016	0.022	0.031	0.040	0.062	0.090	0.122	0.160	0.202	
	Total Pressure	0°	0.011	0.020	0.031	0.045	0.061	0.080	0.125	0.180	0.246	0.321	0.406
	(in. w.g.)	15°	0.014	0.025	0.039	0.056	0.077	0.100	0.156	0.225	0.307	0.401	0.507
		45°	0.031	0.055	0.085	0.123	0.167	0.219	0.341	0.492	0.669	0.874	1.106
Ac = 0.15 ft ² 7 x 4 6 x 5	Flow Rate (cfm)		45	60	75	90	105	120	150	180	210	240	270
	Sound (NC)		-	-	16	21	26	30	36	41	46	50	53
	Throw (ft)	0°		4-6-11	5-8-14	6-9-15	8-11-17	9-13-18	10-14-19	12-15-21	14-17-23	15-18-25	16-19-27
15°			3-5-9	4-6-11	5-8-12	6-9-13	7-10-14	8-11-15	10-12-17	11-13-19	12-14-20	12-15-22	13-16-23
45°			2-3-6	3-4-7	3-5-8	4-6-8	4-6-9	5-7-10	6-8-11	7-8-12	7-9-13	8-10-14	8-10-14
Ac = 0.18 ft ² 8 x 4 7 x 5 6 x 6	Flow Rate (cfm)		54	72	90	108	126	144	180	216	252	288	324
	Sound (NC)		-	-	16	22	26	30	36	42	46	50	53
	Throw (ft)	0°		4-6-12	6-8-15	7-10-17	8-12-18	10-14-20	11-15-21	14-17-23	15-18-26	16-20-28	17-21-30
15°			3-5-10	4-7-12	6-8-13	7-10-15	8-11-16	9-12-17	11-13-19	12-15-21	13-16-22	14-17-24	15-18-25
45°			2-3-6	3-4-7	3-5-8	4-6-9	5-7-10	6-7-10	7-8-12	7-9-13	8-10-14	9-10-15	9-11-16
Ac = 0.22 ft ² 10 x 4 8 x 5 7 x 6	Flow Rate (cfm)		66	88	110	132	154	176	220	264	308	352	396
	Sound (NC)		-	-	17	22	26	30	37	42	46	50	54
	Throw (ft)	0°		4-7-14	6-9-16	8-11-18	9-14-20	11-15-22	12-16-23	15-18-26	16-20-28	18-22-31	19-23-33
15°			3-6-11	5-7-13	6-9-15	7-11-16	9-12-17	10-13-19	12-15-21	13-16-23	14-17-25	15-19-26	16-20-28
45°			2-3-7	3-5-8	4-6-9	5-7-10	5-8-11	6-8-12	7-9-13	8-10-14	9-11-15	9-12-16	10-12-17
Ac = 0.26 ft ² 12 x 4 10 x 5 8 x 6	Flow Rate (cfm)		78	104	130	156	182	208	260	312	364	416	468
	Sound (NC)		-	-	17	22	27	31	37	42	47	51	54
	Throw (ft)	0°		5-7-15	7-10-18	8-12-20	10-15-22	12-17-24	13-18-25	16-20-28	18-22-31	19-24-33	21-25-36
15°			4-6-12	5-8-14	7-10-16	8-12-17	9-13-19	11-14-20	13-16-23	14-17-25	15-19-27	16-20-28	17-21-30
45°			2-4-7	3-5-9	4-6-10	5-7-11	6-8-12	7-9-13	8-10-14	9-11-15	10-12-17	10-13-18	11-13-19
Ac = 0.30 ft ² 14 x 4	Flow Rate (cfm)		90	120	150	180	210	240	300	360	420	480	540
	Sound (NC)		-	-	17	22	27	31	37	43	47	51	54
	Throw (ft)	0°		5-8-16	7-11-19	9-13-21	11-16-23	13-18-25	14-19-27	17-21-30	19-23-33	21-25-36	22-27-38
15°			4-6-13	6-9-15	7-11-17	9-13-19	10-14-20	11-15-22	14-17-24	15-19-27	17-20-29	18-22-31	19-23-32
45°			2-4-8	4-5-10	4-7-11	5-8-12	6-9-13	7-10-14	9-11-15	10-12-17	10-13-18	11-14-19	12-14-20
Ac = 0.34 ft ² 16 x 4 12 x 5 10 x 6	Flow Rate (cfm)		102	136	170	204	238	272	340	408	476	544	612
	Sound (NC)		-	-	17	23	27	31	37	43	47	51	54
	Throw (ft)	0°		5-9-17	8-11-20	10-14-23	11-17-25	13-19-27	15-20-29	19-23-32	20-25-35	22-27-38	24-29-41
15°			4-7-14	6-9-16	8-11-18	9-14-20	11-15-22	12-16-23	15-18-26	16-20-28	18-22-30	19-23-33	20-24-35
45°			3-4-9	4-6-10	5-7-11	6-9-12	7-10-13	8-10-14	9-11-16	10-12-18	11-13-19	12-14-20	12-15-22
Ac = 0.39 ft ² 18 x 4 14 x 5 12 x 6 8 x 8	Flow Rate (cfm)		117	156	195	234	273	312	390	468	546	624	702
	Sound (NC)		-	-	18	23	27	31	38	43	47	51	55
	Throw (ft)	0°		6-9-18	8-12-22	10-15-24	12-18-27	14-20-29	16-22-31	20-24-34	22-27-38	24-29-41	25-31-44
15°			5-7-15	7-10-17	8-12-20	10-15-21	11-16-23	13-17-25	16-20-28	17-21-30	19-23-33	20-25-35	21-26-37
45°			3-5-9	4-6-11	5-8-12	6-9-13	7-10-14	8-11-15	10-12-17	11-13-19	12-14-20	13-15-22	13-16-23

Performance Notes:

1. Tested in accordance with ASHRAE Standard 70-2006 "Method of Testing for Rating the Performance of Air Outlets and Inlets."
2. Air flow is in cfm.
3. All pressures are in in. w.g.
4. Throw values are measured in feet for terminal velocities of 150 fpm (minimum), 100 fpm (middle) and 50 fpm (maximum).
5. Throw data is based on supply air and room air being at isothermal conditions.
6. The NC values are based on a room absorption of 10dB, re 10⁻¹² watts with a single register set at 0° deflection. For deflection settings of 15° and 45°, increase the listed sound levels by 1 and 12 respectively.
7. Blanks "-" indicate an NC level below 15.
8. **Deflection**
The listed deflection settings refer to horizontal deflection. For a 15° upward deflection, use the room throw rating for a 0° setting and the total pressure for a 15° horizontal setting.
The performance tables are based on units with an opposed blade damper.

Corrections for grilles without dampers

	0°	15°	45°
NC	-13	-13	-5
Total Pressure	x .82	x .83	x .93

PERFORMANCE DATA

Size	Core Velocity (fpm)	300	400	500	600	700	800	1000	1200	1400	1600	1800
	Velocity Pressure (in. w.g.)	0.006	0.01	0.016	0.022	0.031	0.04	0.062	0.09	0.122	0.16	0.202
	Total Pressure (in. w.g.)	0.011	0.02	0.031	0.045	0.061	0.08	0.125	0.18	0.246	0.321	0.406
	0°	0.014	0.025	0.039	0.056	0.077	0.1	0.156	0.225	0.307	0.401	0.507
	15°	0.031	0.055	0.085	0.123	0.167	0.219	0.341	0.492	0.669	0.874	1.106
Ac = 0.46 ft ² 20 x 4 16 x 5 14 x 6 10 x 8	Flow Rate (cfm)	138	184	230	276	322	368	460	552	644	736	828
	Sound (NC)	-	-	18	23	28	32	38	43	48	52	55
	Throw (ft)	0°	06-10-20	9-13-24	11-17-26	13-20-29	16-22-31	18-24-34	22-26-37	24-29-41	26-31-44	27-34-47
Ac = 0.52 ft ² 24 x 4 18 x 5 16 x 6	Flow Rate (cfm)	156	208	260	312	364	416	520	624	728	832	936
	Sound (NC)	-	-	18	23	28	32	38	43	48	52	55
	Throw (ft)	0°	07-11-21	9-14-25	12-18-28	14-21-31	16-24-33	19-25-36	23-28-40	25-31-44	27-33-47	29-36-50
Ac = 0.60 ft ² 28 x 4 20 x 5 18 x 6 12 x 8 10 x 10	Flow Rate (cfm)	180	240	300	360	420	480	600	720	840	960	1080
	Sound (NC)	-	-	18	24	28	32	38	44	48	52	55
	Throw (ft)	0°	07-11-23	10-15-27	13-19-30	15-23-33	18-25-36	20-27-38	25-30-43	27-33-47	29-36-51	31-38-54
Ac = 0.69 ft ² 30 x 4 24 x 5 20 x 6 14 x 8 12 x 10	Flow Rate (cfm)	207	276	345	414	483	552	690	828	966	1104	1242
	Sound (NC)	-	-	19	24	28	32	39	44	48	52	56
	Throw (ft)	0°	08-12-24	11-16-29	14-20-32	16-24-36	19-27-38	22-29-41	26-32-46	29-36-50	31-38-54	34-41-58
Ac = 0.81 ft ² 36 x 4 28 x 5 22 x 6 16 x 8 14 x 10	Flow Rate (cfm)	243	324	405	486	567	648	810	972	1134	1296	1458
	Sound (NC)	-	-	19	24	29	32	39	44	49	52	56
	Throw (ft)	0°	8-13-26	12-18-31	15-22-35	18-26-39	21-29-42	24-31-44	29-35-50	31-39-54	34-42-59	36-44-63
Ac = 0.90 ft ² 40 x 4 18 x 8 30 x 5 16 x 10 26 x 6 12 x 12	Flow Rate (cfm)	270	360	450	540	630	720	900	1080	1260	1440	1620
	Sound (NC)	-	-	19	24	29	33	39	44	49	53	56
	Throw (ft)	0°	9-14-28	12-19-33	15-23-37	19-28-41	22-31-44	25-33-47	30-37-52	33-41-57	36-44-62	38-47-66
Ac = 1.07 ft ² 48 x 4 36 x 5 30 x 6 18 x 10 14 x 12	Flow Rate (cfm)	321	428	535	642	749	856	1070	1284	1498	1712	1926
	Sound (NC)	-	-	19	25	29	33	39	45	49	53	56
	Throw (ft)	0°	9-15-30	14-20-36	17-25-40	20-30-44	24-34-48	27-36-51	33-40-57	36-44-63	39-48-68	42-51-72
	15°	07-12-24	11-16-29	14-20-32	16-24-35	19-27-38	22-29-41	26-32-46	29-35-50	31-38-54	33-41-58	35-43-61
	45°	05-08-15	07-10-18	8-13-20	10-15-22	12-17-24	14-18-26	16-20-29	18-22-31	20-24-34	21-26-36	22-27-38

Performance Notes:

1. Tested in accordance with ASHRAE Standard 70-2006 "Method of Testing for Rating the Performance of Air Outlets and Inlets."
2. Air flow is in cfm.
3. All pressures are in in. w.g.
4. Throw values are measured in feet for terminal velocities of 150 fpm (minimum), 100 fpm (middle) and 50 fpm (maximum).
5. Throw data is based on supply air and room air being at isothermal conditions.
6. The NC values are based on a room absorption of 10dB, re 10⁻¹² watts with a single register set at 0° deflection. For deflection settings of 15° and 45°, increase the listed sound levels by 1 and 12 respectively.
7. Blanks "-" indicate an NC level below 15.
8. **Deflection**
The listed deflection settings refer to horizontal deflection. For a 15° upward deflection, use the room throw rating for a 0° setting and the total pressure for a 15° horizontal setting.
The performance tables are based on units with an opposed blade damper.

Corrections for grilles without dampers

	0°	15°	45°
NC	-13	-13	-5
Total Pressure	x .82	x .83	x .93

PERFORMANCE DATA

Size	Core Velocity (fpm)	300	400	500	600	700	800	1000	1200	1400	1600	1800	
	Velocity Pressure (in. w.g.)	0.006	0.01	0.016	0.022	0.031	0.04	0.062	0.09	0.122	0.16	0.202	
	Total Pressure (in. w.g.)	0°	0.011	0.02	0.031	0.045	0.061	0.08	0.125	0.18	0.246	0.321	0.406
		15°	0.014	0.025	0.039	0.056	0.077	0.1	0.156	0.225	0.307	0.401	0.507
		45°	0.031	0.055	0.085	0.123	0.167	0.219	0.341	0.492	0.669	0.874	1.106
Ac = 1.18 ft² 34 x 6 24 x 8 20 x 10 16 x 12 14 x 14	Flow Rate (cfm)		354	472	590	708	826	944	1180	1416	1652	1888	2124
	Sound (NC)		-	-	20	25	29	33	40	45	49	53	57
	Throw (ft)	0°	10-16-32	14-21-38	18-27-42	21-32-46	25-35-50	28-38-54	35-42-60	38-46-66	41-50-71	44-54-76	46-57-80
		15°	8-13-26	11-17-30	14-21-34	17-26-37	20-28-40	23-30-43	28-34-48	30-37-53	33-40-57	35-43-61	37-46-64
45°		05-08-16	07-11-19	9-13-21	11-16-23	12-18-25	14-19-27	17-21-30	19-23-33	20-25-35	22-27-38	23-28-40	
Ac = 1.34 ft² 60 x 4 48 x 5 36 x 6 18 x 12 16 x 14	Flow Rate (cfm)		402	536	670	804	938	1072	1340	1608	1876	2144	2412
	Sound (NC)		-	-	20	25	29	33	40	45	49	53	57
	Throw (ft)	0°	10-17-34	15-23-40	19-28-45	23-34-50	26-38-53	30-40-57	37-45-64	40-50-70	44-53-76	47-57-81	50-61-86
		15°	8-14-27	12-18-32	15-23-36	18-27-40	21-30-43	24-32-46	30-36-51	32-40-56	35-43-61	37-46-65	40-49-69
45°		05-09-17	08-11-20	9-14-23	11-17-25	13-19-27	15-20-29	18-23-32	20-25-35	22-27-38	23-29-40	25-30-43	
Ac = 1.60 ft² 72 x 4 22 x 12 30 x 8 18 x 14 24 x 10 16 x 16	Flow Rate (cfm)		480	640	800	960	1120	1280	1600	1920	2240	2560	2880
	Sound (NC)		-	-	20	25	30	34	40	45	50	54	57
	Throw (ft)	0°	11-19-37	17-25-44	21-31-49	25-37-54	29-41-58	33-44-62	40-49-70	44-54-77	48-58-83	51-62-88	54-66-94
		15°	9-15-30	13-20-35	17-25-40	20-30-43	23-33-47	26-35-50	32-40-56	35-43-61	38-47-66	41-50-71	43-53-75
45°		06-09-19	08-12-22	10-15-25	12-19-27	14-21-29	17-22-31	20-25-35	22-27-38	24-29-41	26-31-44	27-33-47	
Ac = 1.80 ft² 60 x 5 30 x 10 48 x 6 24 x 12 36 x 8 20 x 14	Flow Rate (cfm)		540	720	900	1080	1260	1440	1800	2160	2520	2880	3240
	Sound (NC)		-	-	20	26	30	34	40	46	50	54	57
	Throw (ft)	0°	12-20-39	18-26-47	22-33-52	26-39-57	31-44-62	35-47-66	43-52-74	47-57-81	51-62-88	54-66-94	57-70-99
		15°	10-16-32	14-21-37	18-26-42	21-32-46	25-35-50	28-37-53	34-42-59	37-46-65	40-50-70	43-53-75	46-56-80
45°		06-10-20	9-13-23	11-16-26	13-20-29	15-22-31	18-23-33	21-26-37	23-29-41	25-31-44	27-33-47	29-35-50	
Ac = 2.08 ft² 72 x 5 30 x 12 60 x 6 24 x 14 40 x 8 20 x 16 35 x 10 18 x 18	Flow Rate (cfm)		624	832	1040	1248	1456	1664	2080	2496	2912	3328	3744
	Sound (NC)		-	-	20	26	30	34	41	46	50	54	57
	Throw (ft)	0°	13-21-42	19-28-50	24-35-56	28-42-62	33-47-67	38-50-71	46-56-80	50-62-87	54-67-94	58-71-101	62-76-107
		15°	10-17-34	15-23-40	19-28-45	23-34-49	26-38-53	30-40-57	37-45-64	40-49-70	44-53-75	47-57-81	49-60-85
45°		07-11-21	9-14-25	12-18-28	14-21-31	16-24-33	19-25-36	23-28-40	25-31-44	27-33-47	29-36-50	31-38-53	
Ac = 2.45 ft² 72 x 6 24 x 16 48 x 8 20 x 18 32 x 12 20 x 20 26 x 14	Flow Rate (cfm)		735	980	1225	1470	1715	1960	2450	2940	3430	3920	4410
	Sound (NC)		-	-	21	26	30	34	41	46	50	54	58
	Throw (ft)	0°	14-23-46	20-31-55	26-38-61	31-46-67	36-51-72	41-55-77	50-61-86	55-67-95	59-72-102	63-77-109	67-82-116
		15°	11-18-37	16-25-44	20-31-49	25-37-54	29-41-58	33-44-62	40-49-69	44-54-76	47-58-82	51-62-87	54-66-93
45°		07-12-23	10-15-27	13-19-31	15-23-33	18-26-36	20-27-39	25-31-43	27-33-47	30-36-51	32-39-55	33-41-58	
Ac = 2.78 ft² 36 x 12 30 x 14 26 x 16 24 x 18 22 x 20	Flow Rate (cfm)		834	1112	1390	1668	1946	2224	2780	3336	3892	4448	5004
	Sound (NC)		-	-	21	26	31	35	41	46	51	55	58
	Throw (ft)	0°	15-25-49	22-33-58	27-41-65	33-49-71	38-54-77	44-58-82	53-65-92	58-71-101	63-77-109	67-82-116	71-87-124
		15°	12-20-39	17-26-47	22-33-52	26-39-57	31-44-62	35-47-66	43-52-74	47-57-81	50-62-87	54-66-93	57-70-99
45°		08-12-25	11-16-29	14-20-33	16-25-36	19-27-39	22-29-41	27-33-46	29-36-50	31-39-54	34-41-58	36-44-62	

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3. All pressures are in in. w.g.
4. Throw values are measured in feet for terminal velocities of 150 fpm (minimum), 100 fpm (middle) and 50 fpm (maximum).
5. Throw data is based on supply air and room air being at isothermal conditions.

6. The NC values are based on a room absorption of 10dB, re 10⁻¹² watts with a single register set at 0° deflection. For deflection settings of 15° and 45°, increase the listed sound levels by 1 and 12 respectively.
7. Blanks "-" indicate an NC level below 15.
8. **Deflection**
The listed deflection settings refer to horizontal deflection. For a 15° upward deflection, use the room throw rating for a 0° setting and the total pressure for a 15° horizontal setting.
The performance tables are based on units with an opposed blade damper.

Corrections for grilles without dampers

	0°	15°	45°
NC	-13	-13	-5
Total Pressure	x .82	x .83	x .93

PERFORMANCE DATA

Size	Core Velocity (fpm)	300	400	500	600	700	800	1000	1200	1400	1600	1800
	Velocity Pressure (in. w.g.)	0.006	0.01	0.016	0.022	0.031	0.04	0.062	0.09	0.122	0.16	0.202
	Total Pressure (in. w.g.)	0.011	0.02	0.031	0.045	0.061	0.08	0.125	0.18	0.246	0.321	0.406
	15°	0.014	0.025	0.039	0.056	0.077	0.1	0.156	0.225	0.307	0.401	0.507
	45°	0.031	0.055	0.085	0.123	0.167	0.219	0.341	0.492	0.669	0.874	1.106
Ac = 3.11 ft ² 60 x 8 36 x 14 48 x 10 30 x 16 40 x 12 26 x 18	Flow Rate (cfm)	933	1244	1555	1866	2177	2488	3110	3732	4354	4976	5598
	Sound (NC)	-	-	21	26	31	35	41	46	51	55	58
	Throw (ft)	0°	16-26-52	23-35-62	29-43-69	35-52-75	40-58-81	46-62-87	56-69-97	62-75-107	67-81-115	71-87-123
Ac=361 ft ² 72 x 8 36 x 16 60 x 10 30 x 18 48 x 12 28 x 20	Flow Rate (cfm)	1083	1444	1805	2166	2527	2888	3610	4332	5054	5776	6498
	Sound (NC)	-	-	21	27	31	35	41	47	51	55	58
	Throw (ft)	0°	17-28-56	25-37-66	31-47-74	37-56-81	43-62-88	50-66-94	61-74-105	66-81-115	72-88-124	77-94-133
Ac = 4.29 ft ² 48 x 14 36 x 18 32 x 20 28 x 24	Flow Rate (cfm)	1287	1716	2145	2574	3003	3432	4290	5148	6006	6864	7722
	Sound (NC)	-	15	22	27	31	35	42	47	51	55	59
	Throw (ft)	0°	19-30-61	27-41-72	34-51-81	41-61-89	47-68-96	54-72-102	66-81-114	72-89-125	78-96-135	84-102-145
Ac = 4.65 ft ² 72 x 10 48 x 16 36 x 20 30 x 24	Flow Rate (cfm)	1395	1860	2325	2790	3255	3720	4650	5580	6510	7440	8370
	Sound (NC)	-	15	22	27	32	35	42	47	52	55	59
	Throw (ft)	0°	20-32-63	28-42-75	35-53-84	42-63-92	49-70-100	56-75-107	69-84-119	75-92-130	81-100-141	87-107-151
Ac = 5.58 ft ² 72 x 12 60 x 14 48 x 18 36 x 24	Flow Rate (cfm)	1674	2232	2790	3348	3906	4464	5580	6696	7812	8928	10044
	Sound (NC)	-	16	22	27	32	36	42	47	52	56	59
	Throw (ft)	0°	21-35-69	31-46-83	39-58-92	46-69-101	54-77-109	62-83-117	75-92-130	83-101-143	89-109-154	95-117-165
Ac = 6.25 ft ² 72 x 14 60 x 16 48 x 20 30 x 30	Flow Rate (cfm)	1875	2500	3125	3750	4375	5000	6250	7500	8750	10000	11250
	Sound (NC)	-	16	22	28	32	36	42	48	52	56	59
	Throw (ft)	0°	23-37-74	33-49-87	41-61-98	49-74-107	57-82-116	65-87-124	80-98-138	87-107-151	94-116-163	101-124-175

Performance Notes:

- Tested in accordance with ASHRAE Standard 70-2006 "Method of Testing for Rating the Performance of Air Outlets and Inlets."
- Air flow is in cfm.
- All pressures are in in. w.g.
- Throw values are measured in feet for terminal velocities of 150 fpm (minimum), 100 fpm (middle) and 50 fpm (maximum).
- Throw data is based on supply air and room air being at isothermal conditions.
- The NC values are based on a room absorption of 10dB, re 10⁻¹² watts with a single register set at 0° deflection. For deflection settings of 15° and 45°, increase the listed sound levels by 1 and 12 respectively.
- Blanks "-" indicate an NC level below 15.
- Deflection**
The listed deflection settings refer to horizontal deflection. For a 15° upward deflection, use the room throw rating for a 0° setting and the total pressure for a 15° horizontal setting.
The performance tables are based on units with an opposed blade damper.

Corrections for grilles without dampers

	0°	15°	45°
NC	-13	-13	-5
Total Pressure	x .82	x .83	x .93